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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,421	03/22/2000	Charles S. Roberson	1314.3005R1	8630

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IP Strategies, P.C.
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EXAMINER

LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 05/30/2003

90

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/533,421

Applicant(s)

ROBERSON, CHARLES S.

Examiner

Timothy Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 6, 9, 10, 11, 12, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Demiray et al. (US 5,740,157). Demiray et al. discloses a cross-connect system that has multiple input and output interfaces (plurality of interface cards). See Fig. 1, and col. 5, lines 1-16. The system also includes cross connect units 24 and 26 (an active cross-connect unit, a redundant cross-connect unit). See col. 5, lines 18-31. As shown in Fig. 1, there are a many lines connecting the interfaces to the cross connect units (a plurality of data buses, the data buses acting as communications links between the plurality of cards). An automatic protection switching algorithm exists for the redundant pair of transmit modules. The algorithm monitors the status of the signal information on both the A and B modules and makes the decision as to whether the A or B module shall be selected to carry the active copy of the information traffic; modules can detect failures within themselves and communicate this status to the other module (monitoring the operational status for each one of the cards; determining the operational status of the cards; autonomously switching from non-operational card to a redundant card). See col. 3, lines 1-46. The same principle applies for faulty lines. For example, a high speed interface A may detect a problem in the OC-3 line 12 as indicated by an "X" and indicate to the high speed interface B over the communication link 20 that there is a problem. Any decision to switch over

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may be effected in an almost instantaneous manner. See col. 5, lines 14-49. Controllers on the working and protection high speed interfaces communicate for the switchover decisions (an active control unit, a redundant control unit). See col. 4, lines 11-14.

3. Regarding claims 2 and 11, the system has mechanisms for keeping in a long term state when a working line failure occurs until operation of the working line is restored and a revert to working line is received from the controller. See col. 13, line 59-col. 14, line 2. In order to perform this operation, this system must be able to notify when the system was in requirement of maintenance in the first place.

4. Regarding claims 3 and 12, as mentioned previously, the system automatically switches away from non-working lines or modules in order to keep the system active.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demiray et al.. The rejections of claims 1, 3, 10, and 12 also stand in this rejection. Demiray et al. does not expressly disclose flagging a card as non-operational when it is receiving a software update, but it would have been obvious to perform this step in the case of a software update. One would have been motivated to do this because the module will in effect become non-operational during

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this process, so the system would have properly rerouted the signals to the modules and lines not associated with the software update.

7. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demiray et al. in view of Harris (US 5,771,274). The rejections of claims 1 and 10 stand in this rejection. Demiray et al. does not expressly disclose storing all of the past faults in a database. Harris discloses adding new alarms to a database that includes data of past alarms. See col. 4, lines 11-21. It would have been obvious to a person of ordinary skill in the art to keep a record of past problems in the system. One would have been motivated to do this because keeping a record of past faults and changes can indicate the overall reliability of a particular system and can indicate when a replacement part or system may be needed.

8. Claims 7, 8, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demiray et al. in view of Ise et al. (US 5,888,586). The rejections of claims 6 and 15 also stand in this rejection. Demiray et al. does not expressly disclose reporting the change in operational status after a predetermined period of time. Ise et al. discloses issuing an alarm notice after a predetermined amount of time has expired. See claim 1. It would have been obvious to a person of ordinary skill in the art to wait an amount of time before issuing the operational change in status. One would have been motivated to do this because sometimes the system could receive a bad input and misread a fault, so waiting a period of time before officially issuing the fault could allow the system to confirm that a fault has actually occurred.

9. Regarding claims 8 and 17, if the system never meets that time period, then it doesn't send out the change of operational status. Inherently then, the change of operational status is then discarded.

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10. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demiray in view of Bowdon (US 5,343,194). The rejections of claims 1 and 10 stand in this rejection. Demiray et al. does not expressly disclose having a connection map. Bowdon discloses having a connection map of the system. See at least col. 13, lines 19-32. It would have been obvious to have a connection map present in one of the cross connect units. One would have been motivated to do this because the cross connect would have a complete picture of where it could route the signal in case of a failure

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Demiray et al. (US 5,872,780), Richardson (US 5,329,520), and Hanson et al. (US 5,790,519) disclose system with redundant cross connects or redundant connections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)305-4789. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-9420 for regular communications and (703)746-9420 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

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TLL

May 19, 2003


RICKY NGO
PRIMARY EXAMINER